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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

KUMABE, BLAKE K

ART UNIT

PAPER NUMBER

2195

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/581,054	Applicant(s) ABE, MUTSUMI	
	Examiner Blake Kumabe	Art Unit 2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/30/2006, 6/29/2009, 4/23/2010</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-8 are pending.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
3. Claim 1 recites a task management system for executing a task selected from tasks structuring a task combination. However, it appears that the system would reasonably be interpreted by one of ordinary skill in the art as software per se, failing to be tangibly embodied or include any recited hardware as part of the system. Software alone is directed to a non-statutory subject matter. Applicant is advised to amend the claims to include hardware (e.g. processor and memory) to overcome the 101 rejection.
4. Claims 2-3 and 7 does not cure the deficiency of parent claim 1. Therefore, they are rejected for the same reason as claim 1 as above.

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5. Claim 4 is directed towards a task management method of executing a task selected from tasks structuring a task combination. A 35 U.S.C. § 101 process must (1) be tied to a particular machine or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. The claimed methods for *** could be completely performed mentally, verbally, or without a machine, and no transformation of article or material is apparent, and thus do not qualify as a statutory processes.

6. Claims 5-6 and 8 does not cure the deficiency of parent claim 4. Therefore, they are rejected for the same reason as claim 4 as above.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. The claim language in the following claims is not clearly understood:

- i. As per claim 1, lines 1-2, it is unclear what constitutes a task selected from tasks structuring a task combination (i.e. Is tasks structuring a task combination a group of tasks and a single task from the group selected? Are tasks structuring a task combination a system or application containing tasks?). For the purpose of examining, it is

construed to be a group of tasks and a single task from the group is selected.

As per claim 1, lines 3-4, it is uncertain how a switchover request is judged and what constitutes a task combination switch over (i.e. Is the system judging by comparing priorities of tasks and then issuing a switchover? Is receiving a request considered as judging? Is a task combination being switched over or a task in a single task combination being switched over? Is a switchover request equivalent to an interrupt or preemption?). For the purpose of examining, it is construed that the system is judging whether a switchover should occur and either a task combination is being switched over or a task in a single task combination is being switched over.

As per claim 1, lines 5-7, it is uncertain how the switchover unit is switching over the task combination and how a task is being specified (i.e. Is the currently running task completed before being switched over? Is a first task combination being switched for execution for a second task combination? Are two tasks in a single task combination being switched?). For the purpose of examining, it is construed that either a first task combination being switched for execution for a second task combination or two tasks in a single task combination being switched and the current task is being completed before the switchover.

- ii. As per claim 2, lines 3-4, it is unclear what constitutes an identifier for identifying this task with the specified task (i.e. Is this task referring to the task in claim 2 line 2? Is this task equivalent to the specified task in claim 1 line 6? Is the identifier providing means to specify a task? Does the specified task in claim 1 line 6 use identifiers to call other tasks?). For the purpose of examining, it is construed that the identifier provides means to specify a task in the switchover step in claim 1 line 6.
- iii. As per claim 3, it is uncertain what process completion request the claim is referring to (i.e. Is the request the same as the request in claim 1 lines 3-4? Is the request included in as the specifying in claim 1 line 6?).
- iv. Claim 4 has the same deficiencies as claim 1.
- v. Claim 5 has the same deficiencies as claim 2.
- vi. Claims 6-8 has the same deficiencies as claim 3.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alford et al. (US 6,961,934) in view of Applicant Admitted Prior Art, hereinafter AAPA.

8. As per claim 1, Alford teaches the invention substantially as claimed including a task management system for executing a thread selected from threads structuring a thread combination (A task contains one or more threads. A thread has multiple states including running state when the thread is executing.) (column 3 lines 59-61; column 5 lines 56-67; column 6 lines 1-17), comprising:

a judging unit for judging whether there is a thread combination switchover request or not (Only one thread may execute at a time. A thread waiting to execute is in an idle state until it is requested to execute. The requested thread will request to preempt the currently running thread.) (column 5 lines 19-24; column 5 lines 35-50; column 5 lines 56-67; column 5 lines 56-67; column 6 lines 1-4; column 6 lines 15-17);

a switchover unit for switching over the thread combination after completing an execution of a specified thread in the threads structuring the task combination before the switchover when judging that there is the switchover request (If the requested thread is a cooperative thread it will request to preempt the currently running thread. However, the requested thread will be blocked until the currently running thread has completed.) (column 5 lines 19-24; column 5; lines 44-50; column 5 lines 56-67; column 5 lines 56-67; column 6 lines 1-4; column 6 lines 15-17); and

an execution unit for executing the task selected from the tasks structuring the task combination switched over by said switchover unit (Once the requested thread is

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unblocked, it enters into the running state for execution.) (column 5 lines 56-67; column 6 lines 1-17; Figure 9).

Alford does not specifically teach a task selected from tasks structuring a task combination. However, AAPA teaches a task selected from tasks structuring a task combination (page 1 lines 13-15).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the task management system taught by Alford to be used for a task selected from tasks structuring a task combination taught by AAPA to allow a current task from tasks structuring a task combination to complete execution before the task combination is switched over (page 1 lines 20-22).

9. As per claim 2, Alford teaches a storage unit for storing an associated relationship between the task structuring the task combination and an identifier for identifying this task with the specified task (column 8 lines 17-30; Figure 13a).

10. As per claim 3, Alford teaches wherein the specified task is a task of which a process completion is requested when switching over the task combination (column 5 lines 19-24; column 5; lines 44-50; column 5 lines 56-67; column 5 lines 56-67; column 6 lines 1-4; column 6 lines 15-17).

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11. As per claim 7, Alford teaches wherein the specified task is a task of which a process completion is requested when switching over the task combination (column 5 lines 19-24; column 5; lines 44-50; column 5 lines 56-67; column 5 lines 56-67; column 6 lines 1-4; column 6 lines 15-17).

12. Claims 4-6 and 8 recites a task management method of executing a task selected from tasks structuring a task combination, comprising the above steps. It has the same limitations of claims 1-3 and 7, respectively, above and is therefore rejected using the same art and rationale as set forth above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wetzel et al. (US 2002/0152256) teaches reconstructing the process sequence of a control program. Sankaranarayan et al. (US 7,284,244) teaches resource manager architecture with dynamic resource allocation among multiple configurations. Suzuki et al. (US 2003/0046324) teaches a controller and operating system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blake Kumabe whose telephone number is 571-270-5593. The examiner can normally be reached on 7:30am - 5:00pm EST Monday to Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Meng-Ai An/
Supervisory Patent Examiner, Art Unit 2195

/B. K./
Examiner, Art Unit 2195